The Vitesse M683 multi-processor UNIX system

Features:

- Multiple 68030 processors
- Industry standard UNIX
- Binary compatible with uni-processor systems
- 32–256 users
- Ethernet & NFS
- 600–2400Mb Hard disk storage
- Up to 64Mb RAM
- Exabyte 2Gb tape drive
- 20 slot VME backplane

The Vitesse M683 multi-processor Unix system offers unrivalled price/performance whilst remaining totally binary compatible with existing uni-processor systems. Built around industry standards, the M683 utilises up to four 68030 cards running under a true symmetrical multiprocessing version of the UNIX V.3 operating system.

In a uni-processor system running a multi-user, multi-tasking operating system (such as UNIX), the processor has to give each user task a share of the processing time. Under UNIX, the processor is interrupted every 20 mS (clock tick). At this time, the processor switches from executing a job in the process queue to running the UNIX kernal in supervisor mode. The Operating System then decides whether to start another job or continue with the current one. This mode of operation allows a single processor to appear to run many tasks simultaneously.

The M683 UNIX operating system, operates in exactly the same way except that up to four processor cards will be operating in parallel. A load balancing programme runs from time to time and calculates the percentage usage of each procesor, redistributing tasks in order to maximise efficiency. Additional processor cards are simply plugged into the backplane as processing requirements grow. No reconfiguration is necessary as the system automatically detemines the number of available processors at boot time.

Every aspect of the system has been designed to maximise throughput. Intelligent 68010 based serial I/O cards allow up to 256 users to be serviced as if they were the only active user. A combination of 68020 based intelligent disk controller and the latest disk technology alleviate traditional bottlenecks associated with disk I/O.

The whole system conforms to industry standards. It utilises standard 68030 processor cards, VME bus, SCSI disk interface and the UNIX V.3 multi-processor operating system is fully compatible with its predecessor, V.2.2. This not only ensures binary compatibility with uni-processor systems, it also provides an easy upgrade path – allowing your system to keep pace with your computing requirements, as they grow.

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Technical Specifications

Systems are configured to individual requirements. All systems offer a 20 slot VME backplane.

Processors	4 × Motorola 68030 (25MHz) with 68882 FPU
Memory	4–64Mb Random Access Memory
Hard Disk	600–2400Mb (1–4 drives)
Back-up	Exabyte 2Gb 8mm cartridge or ¼" Cartridge Tape Drive (up to 155Mb) 5¼" Floppy Disk Drive (1.2Mb Formatted)
Peripheral Ports	32–256 serial ports Centronics compatible printer port (optional)
Networking	Ethernet, NFS, X-25
Operating System	Unix V.3 (fully binary compatible with UniPlus + V.2.2 X–Open branded)
Cabinet Dimensions	H760mm D750mm W480mm
Electrical	Input Voltage 220–240 VAC 50/60Hz
Environmental	5 to 35 degrees C, 20-80% humidity (non condensing), Ozone friendly.

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UniPlus+ is a trademark of UniSoft Systems
NFS is a trademark of Sun Microsystems

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